CEO advice seeking: An integrative framework and future research agenda

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CEO Advice Seeking: An Integrative Framework and Future Research Agenda

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In this paper, we review the burgeoning but dispersed literature on chief executive officer (CEO) advice seeking, which has important effects on strategic decision making, the CEO's and the board of directors' effectiveness, and firms' entrepreneurial orientation, innovativeness, and financial performance. We synthesize research findings about the key features of CEO advice seeking and its antecedents and outcomes across multiple levels of analysis. On the basis of our review, we identify important research gaps and develop a future research agenda that outlines new research questions and empirical foci that extend the current scope of analysis. We also highlight promising new theories and underutilized methods suitable for this area of research. With an integrative review and research agenda, we hope to stimulate cross-fertilization of different lines of inquiry and encourage new research that shines a spotlight on the remaining puzzles of CEO advice-seeking research.

Keywords: *CEO; chief executive officer; advice seeking; advice interactions; upper echelons; strategic decision making*

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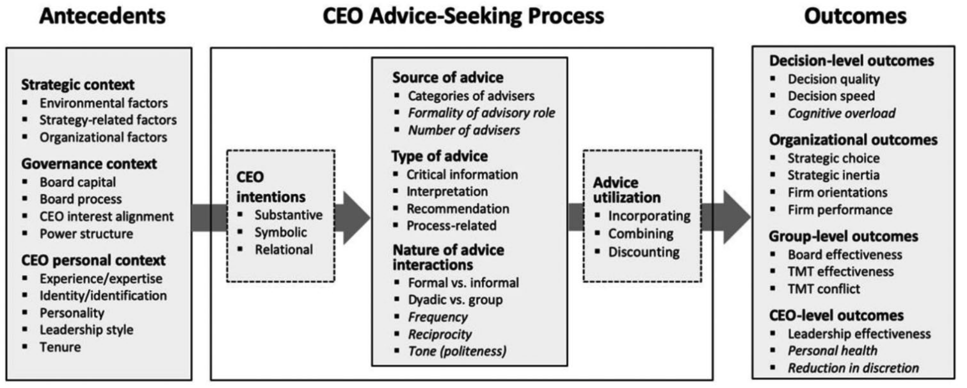
The job of the chief executive officer (CEO) involves making and executing decisions under change and uncertainty and dealing with strategic issues that are complex, ambiguous, and consequential. To surmount these challenges and make astute decisions, CEOs regularly seek advice from a variety of individuals and groups, a phenomenon that has attracted increasing attention from management scholars. As a result, there is a growing literature examining various aspects of CEO advice seeking, defined here as *any interaction of the CEO with another person or group ostensibly directed at accessing knowledge deemed helpful for dealing with a problem* (cf. Heyden, van Doorn, Reimer, Van den Bosch, & Volberda, 2013).

Advice seeking is ubiquitous whenever people are confronted with important and difficult decisions (for reviews on advice seeking as a general phenomenon, see Bonaccio & Dalal, 2006; MacGeorge, Feng, & Guntzviller, 2016). However, advice seeking by a CEO is a distinct phenomenon in many respects given the nature of the CEO's position. It is highly consequential because the decisions made by CEOs affect a large number and variety of constituents. It also occurs through a distinct network of advisers from inside and outside the organization, and some of the advice is channeled through structures (e.g., a board) that govern the CEO's work.

Research indicates that CEOs seek advice from a range of advisers, including members of the top management team (TMT), the board of directors, lower-level managers, CEOs of other firms, and other external contacts (e.g., Arendt, Priem, & Ndofor, 2005; Garg & Eisenhardt, 2017; Kor & Mesko, 2013; Ma & Seidl, 2018; McDonald, Khanna, & Westphal, 2008). Advice-seeking behavior is shown to have significant effects on CEO decision making and beyond, including the choice of strategy, CEO and board effectiveness, entrepreneurship orientation and innovativeness of the company, and firm performance (e.g., Acquaah, 2007; Garg & Eisenhardt, 2017; Geletkanycz & Hambrick, 1997; McDonald et al., 2008; Sundaramurthy, Pukthuanthong, & Kor, 2014).

Given its strategic and organizational implications, an in-depth understanding of CEO advice seeking is valuable for theory and practice. The extant literature has generated rich yet disconnected and isolated insights into CEO advice-seeking behavior; as a result, we lack a coherent and comprehensive understanding of the phenomenon. Currently, research insights are dispersed across different streams of the management literature, including strategic decision making, upper echelons, corporate governance, and executive networks. Due to the different empirical foci and theoretical lenses utilized in these streams, studies have focused on various aspects of CEO advice seeking, although some commonalities are also noted. For example, upper echelons studies focus on CEO advice seeking from the executive team members and how these interactions may affect strategic choice and adaptation (e.g., Kor & Mesko, 2013; Mooney & Amason, 2011), whereas corporate governance research focuses on the CEO's advice interactions with board members and examines their impact on governance effectiveness and firm performance (e.g., Garg & Eisenhardt, 2017; Krause, Semadeni, & Cannella, 2013). Executive network research is centered on CEO advice seeking from external advice sources, exploring the similarities between the CEO and the adviser profiles and their outcomes (e.g., McDonald & Westphal, 2003; McDonald et al., 2008). In addition, studies adopt different levels of analysis. For example, research on CEO advice seeking in the upper echelons and corporate governance literatures primarily focuses on the group or firm level (e.g., Cao, Simsek, & Jansen, 2015; van Doorn, Heyden, & Volberda, 2017), whereas studies in the strategic decision-making literature (e.g., Arendt et al., 2005; Eisenhardt, 1989) and the executive network literature (e.g., Bridwell-Mitchell & Lant, 2014; Walter, Levin, &

Figure 1
CEO Advice-Seeking Framework and Future Research Agenda



Note: Dotted rectangles and texts in italics indicate new areas of research. CEO = chief executive officer; TMT = top management team.

Murnighan, 2015) usually choose the strategic decision or the act of advice seeking as the unit of analysis. Each of these literature streams offers rich insights, but we have reached a point where taking stock of and integrating what we know is essential. A synthesis of the dispersed and disconnected research insights and the charting of unexplored areas is timely and beneficial for developing a comprehensive and nuanced understanding of CEO advice seeking.

Accordingly, with this review, we provide an overview of the research on CEO advice seeking and synthesize insights generated by various literature streams. In this synthesis, we first ground the phenomenon by discussing the uniqueness and key features of CEO advice seeking. The main body of the review is organized into two sections: one on the antecedents and one on the outcomes of CEO advice seeking. As shown in Figure 1, the antecedents section provides a review and synthesis of research about (1) strategic context, (2) governance context, and (3) the CEO's personal context, as key drivers of CEO advice seeking. The outcomes section reviews research on the consequences of CEO advice seeking on (4) strategic decisions, (5) the organizational level, (6) the group level (TMT and board), and (7) the individual/CEO level. Figure 1 illustrates the directional flow and the causal nature of the relationships where the antecedents trigger CEO advice seeking, which then has consequences at multiple levels. Based on the research gaps revealed by the review, the future research section establishes a future research agenda. As indicated by the dotted rectangles and italic fonts in Figure 1, the new research areas complement past research in forming an extended and integrative framework of CEO advice seeking. Moreover, this research agenda highlights promising new theories and underutilized methods for this area of research.

Identifying the Literature

To identify the literature on CEO advice seeking, we searched the Web of Science, which covers the Social Science Citation Index database, for relevant studies. CEO advice seeking is not a clearly bounded domain of research with established key words; therefore, we conducted a broad search using search terms aimed at cutting across different streams of the literature. Our search proceeded in four steps. First, we searched the database for papers with the following search terms in their title, key words, or abstract:

(a) one of three search terms[1]—"CEO*" "executive*," or "top manage*"—in combination with one of the following search terms:
(b) "advi*," "feedback seeking," "counsel*," "CEO* network*," "social network*," "social tie*," "informal tie*," "internal tie*," "external tie*," "social capital," "access to information," "source* of information," "CEO-board relation*," "CEO-board interface*," "CEO-TMT relation*," or "CEO-TMT interface*."

The combination of search terms in parts a and b was aimed at capturing all studies that are potentially related to CEO advice seeking. Following the example of other prominent reviews (e.g., Bromiley & Rau, 2016), we restricted our search to papers in high-impact journals. These include all management journals in the *Financial Times* 50 list and additional journals with high citation rates (for the list of journals, see Table S1 in the online supplement). This broad-level search resulted in an initial list of 201 papers. Second, guided by our definition of CEO advice seeking, we reviewed the identified papers for their relevance to our topic. We excluded studies that did not address CEO advice seeking. For example, many TMT or board studies included "advice" in their abstracts because the study itself contained "advice" for practitioners or the articles referred to the board's "advice" role or board/executive "social capital" or "social network," without elaborating on CEO advice seeking specifically (e.g., drivers, process, or outcomes of CEO advice seeking). This reduced the initial list of papers to 55 studies. Third, to include the most recent studies, we searched the websites of all included journals for forthcoming papers on CEO advice seeking and identified one additional study. In the final step, we checked the references of the identified studies to look for further relevant ones. As a result, 9 more studies were added. Thus, our final list comprises 65 studies, which forms a comprehensive yet manageable base for the review paper.

CEO Advice Seeking as a Phenomenon

Uniqueness of CEO Advice Seeking

Advice seeking is ubiquitous when people make important decisions or deal with difficult problems (Bonaccio & Dalal, 2006; MacGeorge, Feng, & Guntzviller, 2016). It serves as an effective way of coping with situations where people lack relevant knowledge, expertise, and resources or experience anxiety (Gino, Brooks, & Schweitzer, 2012). Because of its pervasiveness in social life, advice seeking has been widely studied in different disciplines, including research studies in communication, social networks, business, psychology, and linguistics (MacGeorge & Van Swol, 2018). The broader literature on advice indicates that advice seeking is motivated by task-related, personal, relational, and cultural reasons and may result in a spectrum of outcomes, ranging from increased "coping capacity and relational closeness [at the individual level] to organizational productivity and creativity and the development of economic policies that affect entire countries" at macro levels (MacGeorge & Van Swol, 2018: 4).

While any individual can seek advice, CEO advice seeking is unique due to the nature of the CEO's job in an organizational context. First, CEOs are accountable for strategic decisions and the overall course of their firms. In contrast to general advice seeking, CEO advice seeking has long-term and far-reaching consequences for various constituents of the organization (Heyden et al., 2013; McDonald et al., 2008), which makes CEOs more conscious of their advice-seeking behavior (Garg & Eisenhardt, 2017). Second, being uniquely positioned at the boundary of the organization, CEOs are dually exposed to internal and external sources of advice, making the choice between these types of advice sources a distinct aspect of their advice seeking (Arendt et al., 2005). Third, the governance arrangements and TMT structure and links around CEOs present unique opportunities and constraints for their advice seeking. The board of directors and TMT are often regarded as "official" advisers to the CEOs. On the one hand, this can facilitate advice seeking for the CEO, as these advisers are usually readily available. On the other hand, the underlying expectations and patterns of these relationships may partially restrict the CEO's discretion in selecting his or her advisers. Thus, when and how CEOs seek advice from official advisers comprises a distinct yet substantive aspect of CEO advice seeking (Garg & Eisenhardt, 2017; Sundaramurthy et al., 2014). Finally, CEOs regularly receive a large amount of data that they have to process and interpret to make decisions, often in a speedy manner. Interpretation and sense making of such data and information often involve seeking advice from others.

For these reasons, CEO advice seeking differs from general advice seeking and deserves specific research attention. In the following section, we discuss the distinct features of CEO advice seeking before reviewing how they relate to various antecedents and outcomes.

Key Features of CEO Advice Seeking

Advice seeking is a common behavior in which CEOs engage when they face difficulties in making strategic decisions or dealing with critical issues (Alexiev, Volberda, Jansen, & Van Den Bosch, in press). The literature shows that CEOs frequently seek advice on strategic issues concerning a company's current or future strategy, such as issues about diversification, acquisitions, innovation, and outsourcing (e.g., Alexiev, Jansen, Van den Bosch, & Volberda, 2010; Haunschild & Beckman, 1998; Jones, Makri, & Gomez-Mejia, 2008; Kroll, Walters, & Wright, 2008; Li & Aguilera, 2008; Mol & Kotabe, 2011). CEOs also seek advice on critical operational issues, albeit less frequently, when their managerial team lacks the relevant operational expertise (Barney, Busenitz, Fiet, & Moesel, 1996; Krause et al., 2013). Furthermore, CEOs ask for advice about leadership challenges. For example, Shen (2003) has argued that in their early years of tenure, CEOs may seek advice on leadership issues from their boards. Beyond typical business and leadership matters, CEOs seek advice on personal issues when they are experiencing marital difficulties, discord with their children, or sickness in family (McDonald & Westphal, 2011).

Sources of advice. A key aspect of research on CEO advice seeking is the choice of the advice source. Given the large number of ties that CEOs typically have, a core research question involves from whom CEOs actually seek advice. Our review suggests that CEOs consider a range of individuals as potential advisers, including their TMT members, lower-level managers, outside board members, CEOs of other firms, politicians, personal friends, and family members (e.g., Acquaah, 2007; Fiegener, 2010; McDonald & Westphal, 2003; Westphal, 1999). These advice contacts have different types of information, expertise, cognitive perspectives, and network access, which can be uniquely valuable to the CEO. The literature offers a number of categorizations of these advice sources and explains why these respective categories of advisers are consulted and what consequences may ensue. The most common categorization distinguishes between internal and external advisers—that is, whether the advice contact is a member of the CEO's organization (e.g., Alexiev et al., 2010; Cao, Simsek, & Zhang, 2010; Heyden et al., 2013). The general tenet is that external advisers provide the CEO with information that is more novel, timelier, and less distorted than the information received from internal advisers (Arendt et al., 2005). Studies demonstrate that external advice sources, such as CEOs of other firms, business partners, governmental officials, community leaders, as well as participants in business roundtables and associations, provide a useful input for the CEO's decisions (Acquaah, 2007; Haunschild & Beckman, 1998; Heavey & Simsek, 2015; McDonald & Westphal, 2010; Mol & Kotabe, 2011; van Doorn et al., 2017).

As opposed to external advice, advice from internal sources is often viewed as less objective and novel but is more prized by the CEO for being firm-specific and easier to incorporate into the decision-making process (Arendt et al., 2005). Reflecting tacit knowledge of the company's idiosyncratic resources, capabilities, and vulnerabilities (Penrose, 1959), internally sourced advice can be more insightful in choosing among alternative strategic directions and achieving effective implementation. However, Menon and Pfeffer (2003) show that, in competitive organizations, there is bias against internal knowledge, which gets closer scrutiny than external knowledge and is subject to undervaluation.

Research has further examined the categories of internal and external advisers and distinguishes between intra- and extraindustry contacts, arguing that extraindustry contacts provide CEOs with ideas that deviate from common assumptions and beliefs in the industry (Geletkanycz & Hambrick, 1997; Yoo & Reed, 2015). In addition, G. L. Chen, Trevino, and Hambrick (2009) suggest that the corporate elite—specifically, CEOs of large firms and financial institutions and high-level government officials—may be treated as one homogeneous category of external advisers, as they tend to provide similar advice because of their shared elite views.

Scholars also differentiate among types of internal advisers, such as top managers, other organizational members, and board members. Studies show that, in seeking advice, CEOs distinguish among TMT members. In a study of technology firms in high-velocity environments, Eisenhardt (1989) observed that CEOs often solicit advice from all TMT members but rely more heavily on the advice of a few members, referred to as the CEOs' senior counselors. Similarly, Mooney and Amason (2011) find that in advice seeking, CEOs typically focus on a subgroup of the TMT comprising managers with whom they have strong ties or a trust-based relationship. These findings relax the old assumption about the CEO collaborating with a close-knit TMT, where all members interact and have similar levels of influence on the CEO (Arendt et al., 2005).

In addition, the board of directors is a major source of advice for the CEO and senior managers on strategic issues (Bezemer, Maassen, van den Bosch, & Volberda, 2007; Johnson, Schnatterly, & Hill, 2013; Westphal, 1999). Outside (nonexecutive) board members may be viewed as a hybrid category of advisers that blends internal and external adviser features, as these directors have formal ties with the company through the board, which gives them access to critical internal information. However, their in-depth expertise and networks still lie outside the firm, often in different company and/or industry domains. In some ways, they may be viewed as insider-outsider advisers. Studies also indicate that the board chairperson can be an important source of advice and a mentor for the CEO (Dulewicz, Gay, & Taylor, 2007; Krause, 2017; Stewart, 1991), even though the nature of CEO-board collaboration can vary among firms (Sundaramurthy & Lewis, 2003). In the new venture context, studies demonstrate that venture capitalist (VC) board members can be important advisers on strategic and operational issues (Barney et al., 1996; Rosenstein, Bruno, Bygrave, & Taylor, 1993; Sapienza, 1992; Sapienza & Gupta, 1994; Sapienza, Manigart, & Vermier, 1996). Another hybrid category involves the so-called most trusted advisors in family firms who serve as mediators in a triangle of management, board, and family members with conflicting needs (Strike & Rerup, 2016). These advisers draw on their internal knowledge and social capital to balance the weight of competing voices in collective sense making.

Research also shows that some of the advisers who are "in principle" available to the CEO are indeed *latent sources of advice* (Bridwell-Mitchell & Lant, 2014). Ma and Seidl (2018) find that when new CEOs face constraints in seeking advice from their TMT members due to a lack of trust, they rely on board directors and (lower-level) staff members for advice. Similarly, Kim and Lu (2018) show that when CEOs face restrictions in appointing particular individuals to their boards as advisers, they turn to their hand-picked TMT members for advice.

Research has also underscored the importance of the CEO's established network of advisers, comprising individuals with whom the CEO has strong ties (Nebus, 2006). Studies show that executives predominantly rely on their advice network and reach out to the advisers beyond that network only in exceptional cases (Levin, Walter, & Murnighan, 2011; Walter et al., 2015), because strong ties and trust facilitate an open flow of communication, in-depth exchange, and the transfer of tacit knowledge. In line with these findings, studies on CEO-board relations indicate that CEOs ask more advice from board members with whom they have strong ties (Jones et al., 2008; Westphal, 1999; Wu, 2008). However, there is value in reaching out to advice sources beyond the established advice network (Levin & Walter, 2019; Levin et al., 2011; Walter et al., 2015). Focusing on "dormant ties," defined as people with whom the advice seeker has not communicated for a long time, Levin et al. (2011) demonstrate that advice sources beyond the existing network give CEOs access to more novel insights.

Type of advice. Another important aspect of advice seeking is the type of advice, which refers to the nature of the knowledge contained in the advice. Ma and Seidl (2018), for example, distinguish between advice that provides the CEO with critical information and advice that provides evaluations of alternative options. Arendt et al. (2005) distinguish among types of advice according to the different stages of the decision making for which advice is sought—that is, gathering information, processing or interpreting information, and recommending and making the decision. In addition, Garg and Eisenhardt (2017) observe that CEOs may ask specific directors for their interpretation of other directors' input. Last, advice may relate to the process of strategic decision making. For example, McNulty and Pettigrew (1999) describe that CEOs solicit advice from their boards on how to conduct strategic planning and which methods to use in developing strategy.

Nature of advice interactions. When seeking advice, CEOs may not only choose among alternative sources and types of advice but also have a preference for specific types of advice interactions. An important aspect of advice interaction is the formality (or informality) of the interaction between the CEO and the adviser. Research suggests that informal interactions with advisers may enable the CEO to obtain better advice thanks to open communication (Arendt et al., 2005; Mooney & Amason, 2011; Sapienza, 1992). These interactions provide "an atmosphere conducive to free exchange of information" in the advice process (Sapienza, 1992: 12). Focusing on advice seeking from TMT members, Mooney and Amason (2011: 36) further add that keeping the advice interactions informal provides the CEO with latitude in selecting advisers in the TMT, because "the CEO need not make clear" the reasons for selectively seeking advice from some TMT members but not others. CEOs' interactions with external advisers tend to be informal (Arendt et al., 2005), whereas interactions with hybrid or internal advisers, such as outside directors or TMT members, can be either formal (e.g., via structured board or executive team meetings) or informal.

In addition, research distinguishes between dyadic and group advice interactions. Although it is often assumed that CEO advice seeking is dyadic (e.g., Arendt et al., 2005), it can also take place in a group context, such as the boardroom (e.g., Forbes & Milliken, 1999). Seeking advice from the board as a group may enable the CEO to better leverage different perspectives and the expertise of board members (Forbes & Milliken, 1999; Minichilli, Zattoni, Nielsen, & Huse, 2012). However, comparing group and dyadic advice interactions, Garg and Eisenhardt (2017) find that dyadic interactions with individual board members allow the CEO to obtain a better quality of advice by enabling an in-depth exchange of thoughts and encouraging closer consideration of the director's ideas. These dyadic interactions also help the CEO preserve his or her discretion or influence in the decision process, whereas the effects of group-based advice interactions during board meeting can be more difficult to control.

Antecedents of CEO Advice Seeking

As shown in Figure 1, our review identifies three types of antecedents of CEO advice seeking: (1) the strategic context in which the firm is operating, (2) the governance context in which the CEO performs, and (3) the CEO's personal context and attributes. We elaborate on these three antecedents, and the online supplement (see Table S2 in the online supplement) tabulates their studies.

Strategic Context

The first set of antecedents of CEO advice seeking involves the strategic context in which the company operates, and it comprises three key factors (i.e., environmental, strategy-related, and organizational factors) that impose particular knowledge and information requirements on CEO decision making. First, *environmental factors* drive CEO advice seeking by generating informational needs for strategic decision making and strategy execution (Eisenhardt, 1989). Often relying on information processing theory, this research conceptualizes CEO advice seeking as "rationalistic, goal-oriented and directed towards information processing" (Alexiev et al., in press) and focuses on how information requirements in a specific decision context drive the CEO's choice of advice sources. Accordingly, in uncertain environments, CEOs rely more heavily on external contacts (or hybrid contacts, such as outside directors) for strategic advice, because with a diverse set of expertise and perspectives, these contacts enable CEOs to acquire novel information, identify emergent trends, and develop strategic alternatives (e.g., Heyden et al., 2013; Jones & Cannella, 2011). Specifically, Arendt and colleagues (2005) argue that CEOs are likely to prefer external sources of advice as the dynamism of the competitive environment increases, because externally acquired information and advice are perceived to be less diluted and distorted as compared with information coming up the corporate hierarchy. External advice offers a variety of interpretations and beliefs embedded in different cognitive schemas and allows for the "framing of issues and answers in a broader perspective" (Heyden et al., 2013: 1333).

In stable environments, however, CEOs prefer internal contacts for advice due to stronger corporate focus on internal issues and strategy implementation (Arendt et al. 2005; Jones & Cannella, 2011). Internal advisers can pinpoint "key operational and functional concerns that may impede effective strategy execution" (Heyden et al., 2013: 1332). Furthermore, Kor and Mesko (2013) argue that CEOs face a dilemma when configuring their TMTs and in choosing between tight and loose coupling of the credentials of their senior managers with the firm's dominant logic and strategy. In a dynamic and less predictable environment, a loose coupling approach—which involves choosing managers with generic and entrepreneurial skills over those with specialized skills—provides more flexibility for strategy pivoting and enables the CEO to seek advice and learn from a less-specialized but more enterprising team. Loose coupling compromises the efficiency of current strategy implementation but promotes CEO advice seeking and learning from a more versatile TMT.

In addition to the industry environment, the institutional environment may shape CEO advice-seeking behavior. On the basis of resource dependence theory and its implication for the advisory role of the board, Oehmichen, Schrapp, and Wolff (2017) argue that the quality of the institutional environment (i.e., information availability and provision of control) affects the advisory influence of board members: in countries with weak disclosure requirements and impaired access to information, CEOs are more likely to rely on industry expert board members as additional channels of information when initiating strategic change. Using information processing theory, Sapienza et al. (1996) find that the extent to which CEOs seek advice from VCs varies significantly across countries. Specifically, their findings indicate that CEOs seek more advice from VCs in the United States and the United Kingdom than in France and the Netherlands. The authors attribute this result to cross-country institutional differences in the financial sector and, in particular, to higher investor expectations from new ventures in the United States and United Kingdom. When this investor orientation is coupled with stronger dedication and advisory contributions from the VCs, the result is a higher likelihood of CEO advice seeking.

Second, regarding *strategy-related factors*, studies indicate that a firm's strategic agenda and competitive strategies influence how CEOs select or engage with specific sources of advice (Arendt et al., 2005; Bacon-Gerasymenko & Eggers, 2019; Sapienza, 1992; Sapienza & Gupta, 1994). In particular, Arendt et al. (2005) argue that when firms pursue innovation-based strategies, such as differentiation or prospector strategies, CEOs rely more on external advisers who provide them with the diverse and real-time information for decision making. In contrast, when firms follow efficiency-based strategies such as cost-leadership or defender strategies, CEOs are likely to opt for internal advisers who can help them address internal controls and operations. Likewise, two studies find that in ventures with greater innovation and value-chain impact, CEOs seek more advice from VC investors and value their advice to a greater extent (Sapienza, 1992; Sapienza & Gupta, 1994). Furthermore, Ma and Seidl (2018) find that new CEOs' selection of internal advisers is driven by the expertise requirements for the new strategic agenda, such as new priorities and change initiatives.

Third, a range of *organizational factors*, such as the company's financial performance, its resource dependence, and its stage of development, have been shown to affect CEO advice seeking. Studies reveal that poor financial performance can influence CEOs' preference of advice sources in two different and contrasting ways. For instance, poor performance can prompt CEOs to seek advice from individuals with relevant expertise to deal with the problem and improve firm performance (Heyden et al., 2013; Krause et al., 2013; McNulty & Pettigrew, 1999). For example, using resource dependence and human capital perspectives, Krause et al. (2013) argue that when operational efficiency is declining, the advice from operational experts on the board (e.g., chief operational officers or presidents of other firms) will be considered more valuable. Similarly, on the basis of information processing theory, Heyden et al. (2013: 1336) show that competitive underperformance encourages CEOs to seek more advice from internal sources, presumably because their firm-specific knowledge can help to "single-out underexploited strengths or firm-specific constraints that may have been overlooked." However, as an alternative explanation, it is also possible that CEOs turn to internal advice sources to affirm their previous decisions when they feel anxious about their career prospects in the face of poor firm performance (Heyden et al. 2013).

Interestingly, McDonald and Westphal (2003) demonstrate that CEOs may reach out to *external* advice sources for the same type of affirmation. When firm performance is poor, CEOs seek advice from external advice contacts, such as CEOs of other companies who are their friends or who work in the same industry or share a common functional background. Grounding their ideas in social capital and identity theories, the authors argue that vulnerable CEOs seek advice from these external contacts (with friendship ties or familiar backgrounds) because they expect them to share similar views and affirm their strategic beliefs.

Furthermore, CEO advice seeking is linked with the dependency of an organization on particular resources and relationships. Westphal, Boivie, and Chng (2006) show that when firms are dependent on other organizations, such as a key buyer, supplier, or competitor, CEOs are more likely to establish friendship ties with the executives of those organizations as a source of strategic advice and other resources. Similarly, in early-stage ventures where there is a stark need of expertise and resources, CEOs seek advice from VCs more so than the later-stage venture CEOs (Rosenstein et al., 1993; Sapienza & Gupta, 1994; Sapienza et al., 1996), which is consistent with resource dependence and information processing theories.

Key insights. As our review highlights, the extant research has devoted significant attention to the organization's strategic context as an antecedent to CEO advice seeking, drawing mainly on information-processing theory but also selectively on other perspectives, such as human and social capital theories and identity theory. A key link in this stream of work, often informed by information-processing theory, is that the CEO's choice of advice source is driven by the knowledge and expertise needs imposed by the specific business environment and the chosen competitive strategy. CEOs rely more on external contacts (including the hybrid outside directors) in dealing with high environmental dynamism or when their firms pursue differentiation or innovation-based strategies. These contacts are preferred for their ability to provide novel information and a diverse set of expertise with more objective, less filtered views of the focal CEOs' companies. For efficiency-based strategies and in stable environments, a CEO's preference shifts to internal contacts, as success is more internally driven and facilitated by control systems. A second theme suggests that in the face of poor financial performance, CEOs will be particularly prone to seek advice. However, on the basis of social identity and social capital theories, they show a preference for internal advisers who are less likely to provide fresh thinking and more likely to confirm their previous views. Ironically, even when they do ask for advice from *external* contacts, they confide in trusted, friendly contacts or individuals with similar backgrounds. Both routes suggest evidence for the *confirming hypothesis* that under financial duress, CEOs have a tendency to seek affirming types of support rather than novel ideas and divergent thinking. If CEOs have not already surrounded themselves with advisers who have a diverse set of perspectives and ideas, it may be too late to seek these in desperate times. Last, we also observe that a void of information and transparency in the broader institutional (country) context increases a CEO's advice seeking. Firm-level dependencies and vulnerabilities, as with new ventures, also boost advice seeking from external and hybrid sources, an argument in line with the information processing and resource dependence perspectives. These advisory exchanges may be linked to the broader institutional or firm-level corporate governance context, which we now consider in detail.

Governance Context

The corporate governance context is another important antecedent to CEO advice seeking, as it defines the overall work environment and expectations of the CEO, including the CEO's conduct and duties, level of effort, and specific goals and performance targets to be reached. Governance context is influenced by the governance mechanisms in effect in the company as well as by the norms in the broader institutional governance environment. A highly relevant governance mechanism for CEO advice seeking involves the board of directors, which by design plays a key role in providing strategic guidance and council to the CEO in conjunction with its oversight and monitoring functions (Hillman & Dalziel, 2003). Despite the board's advisory role, as emphasized by resource dependence theory, proactive advice seeking from the board can be contingent on a number of factors. One of these factors involves board composition and the associated *board capital*, which is the collective endowment of the board members' human and social capital. As corporate boards around the globe have increasingly become more dominated by nonexecutive (outside) directors due to legislation or institutional pressures, board capital is a key factor driving the ability of the directors to provide meaningful advice. Depending on their education, industry and functional expertise, and governance expertise based on their past or current board appointments, directors possess different human and social capital (Bacon-Gerasymenko & Eggers, 2019; Kor & Sundaramurthy, 2009; Kroll et al., 2008; Sundaramurthy et al., 2014). Such capital equips the board with the requisite expertise and access to information networks in advising the CEO on strategic decisions (Carpenter & Westphal, 2001; Schiehll, Lewellyn, & Muller-Kahle, 2018; Stewart, 1991).

Our review shows that there are two ways whereby board capital affects CEO advice seeking. First, based on a range of theoretical perspectives, including resource dependence theory, human and social capital theories, and theories of managerial cognition, research indicates that the extent to which CEOs proactively ask for advice from the board depends on the relevance of the directors' expertise regarding the problems at hand. CEOs turn to their directors for advice because of their experience in the focal industry or an emerging market, in making acquisition deals, or in serving as VCs (Bacon-Gerasymenko & Eggers, 2019; Haunschild & Beckman, 1998; Joh & Jung, 2018; Johnson et al., 2013; Kor & Sundaramurthy, 2009; Kroll et al., 2008). Second, the extent to which directors are asked for advice depends on the similarity of the directors' background and attributes to those of the CEO. In particular, Sundaramurthy et al. (2014) argue that when CEOs and their board members share a common educational background or public company board experience, the CEOs are more likely to seek advice from the board because a common background helps to create a shared understanding and facilitates knowledge exchange. In other words, accessibility of the directors' unique expert knowledge may be contingent on the CEO and directors having a common knowledge of the key expertise domains.

Likewise, the strong social capital of directors can motivate CEOs to seek advice from them. Directors' external ties serve as conduits of information for strategic decision making (Carpenter & Westphal, 2001; Kor & Sundaramurthy, 2009; Stevenson & Radin, 2009). CEOs connect and seek advice from directors who are valuable sources of information and resources and who can signal positively about the legitimacy of the firm and expand its network access (e.g., Boivie, Bednar, Aguilera, & Andrus, 2016; Kor & Misangyi, 2008; Sundaramurthy et al., 2014; Westphal et al., 2006).

In addition to board capital, research has highlighted the impact of selective aspects of *board process* on CEO advice seeking. One important aspect is the availability of board directors for advising. Based on human and social capital as well as managerial cognition perspectives, studies show that outside directors' membership on multiple boards may place significant restrictions on their availability (e.g., board attendance and preparedness) and general time and attention resources (Bacon-Gerasymenko & Eggers, 2019; Kor & Sundaramurthy, 2009; Sundaramurthy et al., 2014). Sundaramurthy and colleagues examined *past* (accumulated) and *current* board appointments of directors and found that while a high number of current board appointments contributes to directors' busyness and reduces their ability to provide advice, cumulative board experience via past appointments is a valuable asset to the CEO and the company (Kor & Sundaramurthy, 2009; Sundaramurthy et al., 2014). Thus, creating an advice-capable board of directors may require appointing directors who developed their board expertise and social capital gradually and who are not bogged down with too many ongoing board commitments. In addition, using information processing theory, Alexiev et al. (in press) argue that the comprehensiveness of the board's decision process—that is, the extent to which the board attempts to be exhaustive or inclusive in its decision making—may motivate CEOs to seek more advice from internal and external contacts to incorporate additional perspectives and opinions.

Another governance factor affecting CEO advice seeking is the *CEO interest alignment*. Based on agency theoretic arguments, highlighting the differences between the CEO's and shareholders' preferences about who the CEO should consult with, studies show that governance mechanisms influence CEO advice-seeking behavior. Specifically, McDonald et al. (2008) find that the use of performance-based incentives (and board monitoring) result in a higher rate of CEOs seeking advice from external executives who have different functional backgrounds and who are not their friends. Similarly, Sapienza and Gupta (1994) find that CEOs are more likely to seek advice from their VCs when their goals are aligned. However, there is also some contrasting evidence about the governance effects on advice seeking. Westphal (1999) demonstrates that CEOs have a tendency to seek advice from directors with whom they have friendship ties or those who were appointed during the CEOs' tenure, and this tendency is amplified when CEOs' stock ownership and long-term incentive compensation rise as a percentage of their total compensation. Thus, under tighter incentive-based controls, CEOs may deepen their advice interactions with "trusted directors." The study also indicates that such friendly advice interactions may have a compromising effect on a board's monitoring function. This effect is further compounded by the fact that directors receive board (re)nominations when they exhibit subdued monitoring behavior (Westphal & Stern, 2007).

Last, researchers have examined how the *power structure* within the upper echelons affects CEO advice seeking. Drawing primarily on resource dependence and information processing perspectives, studies show that the CEO's relative power is an important influence on advice seeking even though the direction of that influence is ambiguous (H. L. Chen, 2014; Jones & Cannella, 2011; Ma & Seidl, 2018). For instance, Jones and Cannella (2011) argue that with higher power differentials, CEOs feel less of a necessity to seek advice from their boards or TMTs. However, H. L. Chen (2014) submits that powerful CEOs influence director selection by nominating their friends or other individuals with whom they have strong social ties. The trust and loyalty of these directors in turn facilitate CEO advice seeking from the board. In support of the second view, Ma and Seidl (2018) find that newly appointed CEOs with the power to reconfigure their TMTs are more likely to seek advice from their TMTs.

Thus, CEOs may use their power to configure their working surroundings, such as board or TMT composition, in a way that establishes a network of trusted advisers. Both views acknowledge the possibility of powerful CEOs shaping boards and TMTs for friendly support (see also Westphal & Zajac, 1995), but the former view predicts *less* advice seeking by the CEO from upper echelon contacts, while the latter predicts *more* advice seeking from this group.

Last, with respect to board power and control, research indicates the presence of unintended consequences. While not focusing on CEO advice seeking directly, McDonald and Westphal (2010) show that greater board control may weaken CEOs' social identification with the corporate elite and reduce their willingness to provide help to other CEOs. An important second-order implication of this board power effect is the system-wide reduced access of CEOs to help from other fellow CEOs.

Key insights. Research examining governance factors as a driver of CEO advice seeking has largely focused on the role of boards of directors and managerial incentives. In explaining advice seeking from the board, studies often adopt information processing, resource dependence, and human and social capital theories and, to a lesser extent, agency theory. Building on the concept of board capital (Hillman & Dalziel, 2003), there is a widely shared view that the directors' human and social capital is a key motivating factor for a CEO to ask for advice. However, there are also conflicting views or evidence about the impact of boards and other governance mechanisms on CEO advice seeking. First, even though directors' multiple board appointments increase their prestige and perceived value as advisers, they restrict their availability and contribution to any single board, which is likely to dampen the likelihood of a CEO asking for guidance from these directors. Second, evidence suggests that performance-based incentives may motivate CEOs to seek advice from neutral (objective) sources of guidance, such as *external* CEOs who are not their friends; however, incentives may also reinforce advice interactions with "trusted board directors" (hybrid source of advice) with whom the CEO has friendship ties or shared tenure. Third, CEO power can influence CEOs' preference of advisers in opposite directions. Powerful CEOs may be more reluctant to seek advice from either board or TMT members. However, when powerful CEOs appoint favorable individuals to these units, they may be more eager to seek their advice. Relatedly, evidence suggests that having some common ground between the CEO and board members through a (partially) shared expertise domain helps to establish a two-way communication and efficient knowledge exchange. However, too much similarity or cloning of the CEO's human capital attributes on the board is bound to be unproductive.

Overall, these findings suggest that the influence of the governance context on CEO advice seeking is complex and that nuances have yet to be identified. Moreover, among the various governance factors, board process remains largely underexamined. For example, factors such as board climate, governance orientation and norms, and the frequency of board meetings (Boivie et al., 2016; Krause, 2017; Roberts, McNulty, & Stiles, 2005) are likely to affect CEO advice seeking. Last, there is a limited understanding of how other governance mechanisms, reforms, and conditions (e.g., investor activism) and the governance structures of different types of firms (e.g., large publicly listed, privately held, new venture, and family firms) may influence CEO advice seeking.

Personal Context

Our review indicates that the CEO's professional and personal attributes are linked to the CEO's advice-seeking behavior. These attributes include the CEO's managerial experience, identity, personality, leadership style, and tenure (Arendt et al., 2005; Barney et al., 1996; G. L. Chen et al., 2009; Lomi, Lusher, Pattison, & Robins, 2014; O'Reilly, Doerr, & Chatman, 2018). In terms of *professional experience*, research based primarily on information processing theory suggests that a lack of specialized domain experience will prompt the CEO to seek expert advice in these areas. For example, when CEOs and their venture team lack industry-specific experience, they welcome more advice from the VCs in business management (Barney et al., 1996). Similarly, the lack of startup experience by the CEO increases advice seeking from VCs (Sapienza & Gupta, 1994).

CEO identity/identification is another important antecedent of CEO advice seeking. Drawing on social identity theory, scholars suggest that the more CEOs identify with a social group, the more likely they will choose individuals from that group as a source of advice (G. L. Chen et al., 2009; Lomi et al., 2014; McDonald & Westphal, 2003; Mooney & Amason, 2011). For example, G. L. Chen et al. (2009) show that when CEOs identify strongly with the business elite in general, they have a tendency to interact exclusively with individuals who possess high social status (e.g., CEOs of large firms and high-level government officials). Similarly, identification with particular social foci within an organization can be an important driver of advice seeking. In a study of a multiunit corporate group, Lomi et al. (2014) find that business unit managers are more likely to seek advice from other managers of the same unit when they strongly identify with this unit. However, they are more likely to seek advice from managers of *other* units (i.e., boundary crossing) when they identify more strongly with the *corporate group* than their subunit. Furthermore, McDonald and Westphal (2003) note that the salience of a CEO's identification with a particular social group can change over time, which in turn may alter the advice-seeking behavior. They argue that managerial anxiety due to company underperformance can amplify a CEO's identification with other CEOs with whom they have a friendship tie or share a background, resulting in more advice seeking from them.

CEO personality can also influence the CEO's propensity or proactiveness of seeking advice from others. Drawing on the big five model of personality, Jones and Cannella (2011) argue that CEOs who rate high on extroversion, openness to experience, and agreeableness are more likely to proactively involve board or TMT members in decision making. In addition, narcissism is negatively linked to CEO advice seeking. O'Reilly et al. (2018) show that narcissistic CEOs are more reluctant to ask for advice on legal matters.

An additional personal attribute related to CEO advice seeking is *CEO leadership style*. In their conceptual work on the CEO-adviser model, Arendt et al. (2005) utilize leadership theory to stipulate that CEOs who exhibit a transformational leadership style are likely to seek advice from their informal networks that reside outside the company. The rationale behind this behavior is that as unconventional innovators, transformational CEOs seek new opportunities and wish to change the status quo (Bass, 1985). Such endeavors require real-time nonredundant information that is more likely to be available from external networks. In contrast, transactional CEOs tend to be more focused on efficiency and bureaucratic modes of governance. They prefer formal advisory systems that can generate internal information that can be used to maintain efficiency and controls (Arendt et al., 2005).

Last, a *CEO's company/position tenure* is likely to be an important driver for the choice of advice source. Building on insights from social network and information processing theories, scholars argue that with extended tenure in the position, CEOs will develop closer advice relations with the individuals who surround them (Arendt et al., 2005; Barney et al., 1996). Naturally, outsider CEOs will rely more on external advisers because they lack intimate knowledge of the internal individuals. However, once outsider CEOs have had enough time to assess the value and character of internal advisers, they are likely to identify reliable sources of internal advice and replace "those found incompetent or untrustworthy with individuals (usually from their informal advisory system) they trust" (Arendt et al., 2005: 691).

Key insights. This review has allowed us to observe that the CEO's personal context has received far less research attention than other antecedents. Consistent with a focus on individual-level attributes, studies have built on identity, personality, and leadership theories. However, many of the proposed arguments are conceptual and have not been empirically examined. Given the general scarcity of empirical research on personal context, there are only a few conclusive findings. One important finding is the influence of CEO identity, which suggests that CEOs have a tendency to rely on advice from members of the social group with whom they identify, within and outside the company. These advice networks may shift with the evolving CEO identity based on the CEO's career trajectory, changes in corporate governance environment, organizational events, and performance outcomes. In addition, CEOs' cognitive capabilities may influence their advice seeking. Future research can examine whether CEOs with higher cognitive capabilities are better at integrating multiple sources of advice and thus seek more of it. It is also possible that such CEOs seek advice less often because of their confidence in their own intellectual capabilities.

Outcomes of CEO Advice Seeking

CEO advice seeking has been associated with a range of *outcomes*, including outcomes at the decision level, the organizational level, the group level of the board and TMT, and the individual level of the CEO (for an overview of these studies, see Table S2 in the online supplement). Most of this research has focused on the benefits of advice seeking, while a few studies highlight potential negative consequences, such as strategic inertia and TMT conflict.

Decision-Level Outcomes

The most immediate outcomes associated with CEO advice seeking have been *decision quality* and *decision speed* (Eisenhardt, 1989; Garg & Eisenhardt, 2017; Levin et al., 2011; Walter et al., 2015). Based on a social capital perspective, studies have linked advice seeking from “dormant ties” (i.e., former contacts who are currently out of touch) with *decision quality* in terms of novelty (Levin et al., 2011; Walter et al., 2015). Specifically, Levin et al. (2011: 925) argue that “the knowledge accumulated while a tie lies dormant may well provide new and unexpected insights if the tie is reconnected.” In an experimental study with executive MBA students, the authors show that, after seeking advice from current and dormant ties about specific managerial decisions, the executives gained more novel information from their dormant ties than current ones. Using a similar methodology, Walter et al. (2015) observe that in reconnecting with dormant ties, managers felt that the advice given by individuals with whom they did not interact frequently was more helpful in decision making. The value gained from advice was also higher when the rekindled contacts were of high status.

In addition to quality, *decision speed* has been linked to CEO advice seeking. In the context of decision making in high-velocity environments, Eisenhardt (1989) finds that decision speed was improved when CEOs focused on advice from the most experienced TMT members. Building on information processing theory, the author suggests that a layered advice-gathering process—that is, seeking input from all TMT members but focusing on advice from the most experienced ones—enables CEOs to acquire more information and consider more alternatives in a short period than what a centralized or consensus-based decision process would allow. Furthermore, a recent study by Garg and Eisenhardt (2017) based on resource dependence theory has examined the influence of dyadic versus group advice interactions of the CEO on decision speed. Through four case studies of CEO advice seeking from boards of directors, the authors show that dyadic interactions with board members accelerate the strategic decision process by allowing the CEOs to have more open yet focused exchanges with their directors. In contrast, group advice interactions during a formal board meeting restrict in-depth exchange, thereby slowing down or even impeding the decision process. These studies show that both the choice of the advice source and the nature of advice interactions influence strategic decision-making speed.

Key insights. Research on the decision-level outcomes of CEO advice seeking has been informed by a range of theories, including social capital, information processing, and resource dependence theories. However, the amount of research is rather limited. Regarding decision quality, we only know that seeking advice from dormant ties can improve CEOs' decision quality (Levin et al., 2011; Walter et al., 2015). However, research has not examined the effects of CEOs' advice seeking from other adviser categories (e.g., internal vs. external, friends vs. nonfriends, intra- vs. extraindustry contacts) on decision quality. Regarding decision speed, studies show that CEOs gathering layered advice from senior executives and engaging in dyadic advice interactions with directors may accelerate strategic decision making (Eisenhardt, 1989; Garg & Eisenhardt, 2017). However, we do not know how utilizing other types of advisers may influence decision speed. It is possible that seeking advice from certain types of advisers may influence decision quality and decision speed in opposite directions. For example, advice from external contacts may improve decision quality due to the novelty of the perspectives accessed, but it can also slow down the decision process, as novel input takes longer to be integrated into the decision and implementation processes.

Organizational Outcomes

Our review indicates that most of the studies on the outcomes of CEO advice seeking have focused on organizational outcomes, including a firm's strategic choice, entrepreneurial orientation, and financial performance. First, utilizing the social network perspective, several studies have demonstrated that seeking advice from external versus internal sources can affect the firm's *strategic choice*, such as the likelihood of strategic change or the choice of specific strategies. Although some of these studies refer to the top managers in general rather than the CEO (Geletkanycz & Hambrick, 1997; Yoo & Reed, 2015; Yoo, Reed, Shin, & Lemak, 2009), the causal mechanisms are still informative regarding the outcomes of CEO advice seeking. Specifically, Geletkanycz and Hambrick (1997) find that advice from intraindustry ties is associated with the choice of a strategy that conforms to the central tendencies of the industry, indicating that the advice was embedded in existing industry recipes. Advice from extraindustry ties, however, results in a deviation from industry tendencies, as these contacts provide executives with new information and novel ideas (Geletkanycz & Hambrick, 1997). Similarly, advice from intra- and extraindustry ties influences firms' choice of competitive strategy vis-à-vis first movers (Yoo et al., 2009; Yoo & Reed, 2015). Yoo and colleagues find that advice from intraindustry ties is positively related to the adoption of a resource-imitation strategy that involves reproducing the leading firm's resources deployment strategies. In contrast, advice from extraindustry ties exposes managers to new ideas and results in the adoption of a resource-substitution strategy, which involves developing alternative resource deployment strategies.

However, studies also reveal that seeking external advice does not guarantee a deviation from industry tendencies. On the basis of identity theory, McDonald and Westphal (2003) find that seeking advice from other CEOs with similar backgrounds results in strategic persistence. Similarly, G. L. Chen et al. (2009) show that when CEOs with elite identities seek advice exclusively from high-status individuals, their reaction to grassroots/bottom-up issues slows down. Thus, insular CEO networks (whether internally or externally based) may promote *strategic inertia*.

Studies also utilized resource dependence theory to examine the links between advice seeking and strategic choice. Oehmichen et al. (2017) show that gaining advice from directors who are industry experts enables the CEO to initiate strategic change when the relevant information is not available from other sources. In a study of family firms, Jones et al. (2008)

find that advice from affiliated outside directors who have strong, trust-based ties to the firm lowers the perceived risk of diversification and enables its adoption.

Second, research shows that CEO advice seeking can influence a *firm's orientation* toward innovation and entrepreneurship. Building primarily on information processing and social capital perspectives, several studies indicate that advice seeking from a wider range of sources enables CEOs to promote an entrepreneurial or innovative orientation in their firms (Alexiev et al., 2010; Cao et al., 2015; Cao et al., 2010; van Doorn et al., 2017; Wu, 2008). In identifying opportunities for innovation and entrepreneurial activities, CEOs benefit both from external advisers who provide novel information about the market, technologies, and strategic alternatives and from internal advisers who offer critical operational knowhow or propose new initiatives. For example, Alexiev et al. (2010) find that executives' internal and external advice seeking contributes to their firms' exploratory innovation, demonstrating that the effects of these two types of advice can be complementary rather than mutually exclusive. However, if a CEO relies too heavily on internal ties as a source of advice, the firm's entrepreneurial orientation suffers (Cao et al., 2015). These findings suggest that although internal and external sources of advice can be uniquely valuable, external advice is highly important for innovation and entrepreneurial initiatives (van Doorn et al., 2017) because it diversifies the knowledge received from internal sources. Only when the executive team is diverse (e.g., expertise and demographics) can it be possible to maintain innovation and strategic renewal while relying heavily on internal advice (Alexiev et al., 2010; Kor & Mesko, 2013).

Third, research shows that CEO advice seeking has consequences for *firm performance*, such as firm survival (e.g., Chatterji, Delecourt, Hasan, & Koning, 2019), sales growth (e.g., Ashford, Wellman, Sully de Luque, De Stobbeleir, & Wollan, 2018), or profitability and market value (e.g., Westphal, 1999). Empirical evidence suggests that the performance effect of advice depends on the alignment between the information requirement of the firm's strategy and the CEO's advice contacts (Acquaah, 2007; Geletkanycz & Hambrick, 1997; Yoo et al., 2009). Effective strategy implementation requires experience-based expert advice and applied knowledge. For example, Geletkanycz and Hambrick (1997) show that in implementing a strategy that deviates from industry tendencies, firm performance is enhanced when executives seek advice from extraindustry ties. Alternatively, for a strategy that conforms to industrial tendencies, superior performance is achieved when executives seek advice from intraindustry ties. Moreover, Acquaah's (2007) study of advice ties in Ghana reveals that the types of contacts may matter to the success of competitive strategy. They find that advice ties with fellow executives and community leaders may be beneficial for all strategy types, whereas government ties are more useful for certain strategies.

Other studies have examined the performance effects of hybrid sources (outside directors) and internal sources (TMT) of advice based on the perspectives of agency theory, stewardship theory, information processing, and human and social capital. Research shows that CEOs' advice seeking from outside directors (Westphal, 1999), VC directors (Sapienza, 1992), or TMT members (Kim & Lu, 2018) improves financial performance. Board capital attributes are positively linked to advice provision to the CEO and firm performance (Khanna, Jones, & Boivie, 2014; Kor & Sundaramurthy, 2009), but performance impact can be contingent on matching the firm's needs. For instance, seeking advice from operational experts on the board is beneficial when the firm's operational efficiency is declining (Krause et al., 2013). Stock-based performance of acquisitions improves when executives have access to advice from directors who are experienced in the mergers and acquisitions process or target firm industry (Kroll et al., 2008).

Key insights. When compared with the outcomes at other levels, organizational outcomes have received the most attention in the CEO advice-seeking literature. Among many insights, two strong themes emerged with well-supported results. The first key insight is that when CEOs seek advice more from sources cognitively distant from themselves, enabling them to bring in novel perspectives and knowledge, their firms pursue strategic change at a higher rate, while insular sources of advice (internal or external) promote strategic inertia. Externally and internally sourced advice can be complementary and jointly promote an entrepreneurial orientation and innovation-based strategies, but a lack of external advice (from cognitively distant and latent sources) is detrimental to innovation. The second key insight is that although there are general positive effects of CEO advice seeking from the executive team, outside directors, and affiliated directors on firm performance, the effects are stronger when there is a fit between the adviser expertise and the strategic needs of the company.

Group-Level Outcomes

CEO advice seeking is closely linked with boards and TMTs, but we have a limited understanding of the effects of CEO's advice-seeking behavior on these groups. Building on insights from agency, stewardship, and resource dependence theories, a number of studies have argued that CEO advice seeking from the board has complex effects on *overall board effectiveness*. While the CEO's advice interactions with the board bolsters the effectiveness of the board's advisory role (Forbes & Milliken, 1999; Minichilli et al., 2012), it can also undermine the board's *monitoring* role (Sundaramurthy & Lewis, 2003). Studies by Westphal (1998, 1999) suggest that when CEOs intensify efforts to build friendship ties with outside directors (especially when facing an outsider-dominant board), their advice relationships with the directors thrive. As more trust is established, CEOs feel more comfortable in seeking and accepting advice from the board. However, board oversight effects may be softened at the expense of growing (friendly) advisory ties (Adams & Ferreira, 2007). If directors cannot simultaneously engage in control and collaboration, dysfunctional cycles of governance may be initiated (Sundaramurthy & Lewis, 2003).

CEO advice seeking may also influence *TMT effectiveness*. Building on the theory of humble leadership, Ashford et al. (2018) find that when CEOs seek feedback from their TMT members on their leadership, TMT members' collective sense of potency (i.e., positive beliefs about the team's effectiveness) is improved. Managers feel that their opinions and perspectives are valued and appreciated, which in turn boosts their confidence and perception of high TMT effectiveness. However, CEO advice seeking can also have negative group-level consequences, such as *TMT conflict*. In their study of new CEOs, Ma and Seidl (2018) find that CEOs seeking advice from a few selected members of their TMT resulted in interpersonal conflict and tension, as certain members felt left out from the decision process.

Key insights. Research on the group-level outcomes of CEO advice seeking is very limited, but it draws on multiple theoretical perspectives. One key insight concerns the contrasting effects of CEO-board advice interactions on board effectiveness. CEO-board advice interactions may strengthen the effectiveness of the board advisory function, but they may weaken the board monitoring function. This contrasting effect may be more common when the advisory role is deepened due to building friendship ties between the CEO and directors (because of oversocialization and the use of social influence tactics by the CEO). In other contexts, such as new ventures, the advisory function of the board can be quite prominent without compromising the oversight function, possibly because agency issues are less prevalent in younger firms (Kor & Misangyi, 2008). Overall, we have limited empirical understanding of these interdependent effects. A second key insight concerns the potentially contrasting effects of CEO advice seeking from the executive team. On the one hand, advice seeking may increase TMT effectiveness by signaling the value of its members' advice; on the other hand, it can result in negative outcomes, such as TMT conflict, if members receive differential treatment as potential advice sources. Further research is needed to reconcile these findings.

CEO-Level Outcomes

CEO-level outcomes of advice seeking have received hardly any attention in the literature. Only two studies focus on the effects of advice seeking on the CEO's *leadership effectiveness*. McDonald and Westphal (2011), using social capital theory, find that seeking advice from other fellow CEOs about personal problems has a positive effect on the CEO's leadership effectiveness. Advice from fellow CEOs who experienced similar personal problems helps CEOs cope with their own problems and reduces the anxiety and depression they cause. In a second study based on the theory of humble leadership, Ashford et al. (2018) show that seeking advice from TMT members about leadership behavior improves the CEO's leadership effectiveness.

Key insights. Research on the individual-level outcomes of CEO advice seeking has focused merely on a single outcome variable (i.e., leadership effectiveness). This has yielded one key insight, based on social capital and leadership theory: CEO advice seeking from TMT members and fellow CEOs can increase the CEO's leadership effectiveness. Further research of this type is needed to generate a more comprehensive understanding of the individual-level outcomes—in terms of other potential outcome variables (beyond leadership effectiveness) and other potential sources of advice (beyond TMT members and other CEOs).

An Extended Framework and Research Agenda

Using Figure 1 as a synthesizing framework, we brought together the growing yet dispersed literature on CEO advice seeking. Our review helped us identify important research gaps in the literature, which are indicated as new elements in Figure 1 in addition to existing ones. In this section, we develop a research agenda by (1) extending the synthesizing framework to outline new empirical foci, (2) proposing new and promising theories for conceptualizing the phenomenon, and (3) calling for fruitful yet underutilized methods to study CEO advice seeking.

New Empirical Foci for Studying CEO Advice Seeking

Our review shows that while the literature has generated rich insights about the drivers and outcomes of CEO advice seeking, we know relatively little about the *process of advice* *seeking*—that is, what happens between the antecedents and the outcomes. To fully understand the CEO advice-seeking phenomenon and how it relates to various antecedents and outcomes, we must increase our knowledge of this dynamic process. To this end, we have added two new building blocks to the CEO advice-seeking continuum: a CEO's intentions for advice seeking and a CEO's advice utilization, which precede and follow the main act of advice seeking (as shown in Figure 1 and indicated by dotted rectangles). Moreover, we captured additional features of the choice of advice sources and advice interactions (indicated by italics in Figure 1) that warrant further research, such as the formality of the advisory role and the frequency and reciprocity of advice interactions. Furthermore, we point to the need for research that examines the interaction effects of different antecedents on CEOs' advice-seeking behavior. Last, we highlight the need for future research to pay more attention to microlevel outcomes at the decision or CEO level (e.g., cognitive overload, reduction in discretion, and CEO health). We now elaborate on these key areas of the research gap and proposed research directions by following the sequential flow in Figure 1. In addition, in Table 1 we provide sample research questions for these newly identified future research areas.

Interactive effects of different antecedents. Research has provided numerous insights into the roles of various drivers in CEO advice seeking (i.e., strategic, governance, and a CEO's personal context); however, we lack research on how different drivers work jointly to influence advice seeking. Our review suggests that while some of the contextual drivers may complement each other, others contradict one another. For example, a dynamic environment requires a CEO to rely on advice from external sources (Heyden et al., 2013), but due to personal attributes, such as identity and personality, CEOs may prefer internal advisory systems (Arendt et al., 2005). These interactions may motivate new research questions. For example, how do governance norms and practices influence and interact with a CEO's personal attributes, such as identity and leadership style, and drive advice-seeking behavior? When do the substantive advice needs of the firm overrule the tendency of a CEO to confide in like-minded individuals?

We find that there is significant value in research that considers how these interaction effects play out through CEOs' configuration of their TMTs. TMT members are among the most accessible advice contacts for the CEO; thus, how CEOs configure their management teams matters to the quality of advice they receive. On the one hand, in response to needs based on the strategic context, CEOs may surround themselves with executives with a diverse set of skills and mind-sets (Kor & Mesko, 2013). On the other hand, driven by identity or values, CEOs may look for affirmation of their ideas and thus promote executives with similar views (McDonald & Westphal, 2003; Westphal & Zajac, 1995). However, how do these potentially conflicting forces come into play as CEOs create and modify their management teams, which drives their likelihood of and reasons for utilizing TMT members for advice? Likewise, how do CEOs balance the need for diversity of expertise and perspectives with the need to have commonality and a shared understanding with their advisers, as both approaches have their advantages?

The interactive effects of the antecedents are also relevant for the board of directors, which is arguably the only advice source where the CEO has limited power in reconfiguring the advice unit or choosing to engage with it. At times, boards can be the primary source of objective and novel advice for the CEO relative to other sources. Future research can examine how board structure and process may interact in promoting an environment conducive to

Table 1
Future Research Agenda With Sample Questions

Empirical focus	Research questions
Interaction effects of antecedents	• How do different antecedents interact in driving CEOs' choice of advisers? • How do strategic, governance, and personal contexts jointly influence the way in which CEOs configure the TMT for advice seeking? • How do strategic, governance, and personal contexts jointly influence CEOs' advice interactions with the board?
CEO intentions of advice seeking	• How do different antecedents affect intentions for CEO advice seeking? • How do CEOs' substantive, symbolic, and relational intentions interrelate in shaping CEO advice-seeking behaviors? • How do specific intentions mediate the relationship between the antecedents and CEO advice seeking?
Selection of advice sources	• When do CEOs seek advice from formal versus informal advisers and with what consequences? • What are the factors that influence the utilization of multiple advice sources for a single decision, and how do CEOs sequence these advice interactions? • How does the number of advice sources influence advice utilization and outcomes?
Nature of advice interactions	• How do various antecedents and CEO intentions influence CEOs' choice of formality or frequency of advice interactions? • How does the nature of advice interactions (e.g., tone) relate to the different sources of advice? Are there systematic differences in the way that CEOs interact with different advice sources? • How do frequency, reciprocity, and tone of advice interactions influence CEO's advice utilization and advice outcomes?
Advice utilization	• How do the different antecedents and CEO intentions affect advice utilization? • How does advice utilization mediate CEO advice seeking (i.e., choice of advice sources, nature of advice interactions, and type of advice) and the different levels of outcome? • How do CEOs combine advice from multiple sources and different types of advice?
Microlevel and negative outcomes	• How does CEO advice seeking affect microlevel outcomes (decision, group, and individual levels)? • When/how does CEO advice seeking lead to negative outcomes, such as cognitive overload, group conflict, and reduction in the CEO's discretion? • How do CEOs balance different negative and positive outcomes of advice seeking?

Note: CEO = chief executive officer; TMT = top management team.

CEO advice seeking *without* compromising the board's oversight function. Research may also examine how interactions among the firm's strategic needs, the CEO's personal context, and board capital and process jointly shape the CEO-board advice relationship.

Furthermore, one can examine the relative influence of the internally sourced ideas and proposals from the TMT versus those generated by "outsiders" such as nonexecutive directors. Menon and Pfeffer (2003) reveal how internally competitive organizations are biased in favor of external knowledge, viewing them as more novel and superior than internal knowledge, which receives more scrutiny and critique. By the same token, in a governance climate where directors are actively involved in strategy formulation (McDonald & Westphal, 2010), there is a possibility of *board ideas* competing with *TMT ideas* (Roberts et al., 2005) and a potential bias for board-generated solutions resulting in dismissal of valuable managerial insights. Future research can examine how different combinations of contextual conditions (strategic, governance, and personal) may introduce a bias for a certain type of advice source.

CEO intentions. Another important area for future research involves the CEO's intentions or motivations for seeking advice. Even though research acknowledges the existence of different intentions, we lack systematic research that examines how different intentions mediate the relationship between antecedents and advice-seeking behavior. Most studies implicitly assume that seeking advice is triggered by the motivation to obtain *substantive* advice to deal with specific issues (Arendt et al., 2005). As the strategic context, governance context, and the CEO's personal context impose specific information requirements on strategic decision making, CEOs will seek substantive information and suggestions to meet those requirements (e.g., Alexiev et al., 2010; Heyden et al., 2013).

However, CEO advice seeking is also motivated by symbolic or relational concerns. *Symbolic concerns* have been noted in the psychology-based (general) advice-seeking literature (Bonaccio & Dalal, 2006; MacGeorge & Van Swol, 2018) but have not been closely examined in CEO advice-seeking research. In this case, CEOs may consult reputable advisers as a symbolic act of management (Pfeffer, 1981) to enlist them as experts or references to support specific decisions (Cross, Borgatti, & Parker, 2001). CEOs may approach individual board members to vet ideas ahead of the proposal discussions during board meetings to influence their opinions (McNulty & Pettigrew, 1999). Likewise, if CEOs regularly seek input from their executive teams, they are likely to receive better support and compliance from executives who feel valued and appreciated. Alternatively, advice seeking may help a CEO share the responsibility of adopted decisions with advisers (e.g., board members). In the event of poor performance, prior advice seeking can soften the blame on the CEO. For that matter, symbolic advice seeking may be prevalent for decisions made under uncertainty where calculating CEOs may utilize advice seeking as a self-risk-hedging device. Currently, we lack a clear understanding of how often these scenarios occur and what implications they have.

In addition, advice seeking may be motivated by *relational* concerns. Without regular advice interaction, advice contacts may fade away from the CEO's advice network and become inaccessible in the future (Nebus, 2006). Hence, CEOs may strategically consult existing advice sources to maintain these advice relations, just as they reach out to new advice sources to enlarge their existing advice network (Garg & Eisenhardt, 2017; Westphal et al., 2006). For firms that occupy peripheral positions in business networks (e.g., smaller or younger companies), a CEO's proactive advice-seeking efforts to maintain and increase the company's network size and centrality are crucial for success (Haunschild & Beckman, 1998).

However, the wider psychology and management literature also points to concerns about the potential "social costs" of advice seeking (Lee, 2002). Advice seekers often fear that they will look incompetent in the eyes of potential advisers even though evidence indicates that advice seeking often promotes a positive perception of the advice seeker's competence (Brooks, Gino, & Schweitzer, 2015). Similarly, Menon and Pfeffer (2003) show that managers often fear losing status and weakening their position in the organization if they utilize knowledge and solutions developed by their internal colleagues. Such fears can influence the CEO's choice of advice sources. To avoid a potential negative impression, CEOs may hesitate to seek advice from certain sources, such as the board of directors (Sundaramurthy & Lewis, 2003) or TMT colleagues, and instead approach others, such as trusted fellow CEOs (McDonald & Westphal, 2003). Likewise, advice seekers face the risk of advice contacts not responding to their requests, which can deter advice seeking (Levin et al., 2011; Walter et al., 2015). For this reason, they may opt for safer contacts with friendship ties or similar views, which has been shown to constrain the "interpretative repertoire" of the CEO (Heavey & Simsek, 2015: 944).

In summary, insights from the broader advice-seeking literature suggest that there is merit to further researching a CEO's advice-seeking intentions, as these are likely to have implications for choosing the adviser, whether (and how) the advice is utilized, and the consequences that follow. Because CEO intentions mediate the effects of the antecedents of advice seeking, examining how various intentions interrelate can lead to a more nuanced understanding of how the influences of strategic, governance, and personal contexts are channeled into the advice-seeking process and behavior. For example, symbolic intentions may follow substantive intentions, such as when a CEO initially seeks substantive advice but then also uses the advice interactions to gain legitimacy. Alternatively, advice seeking may be primarily motivated by symbolic purposes (e.g., impression management), which could be followed by a substantive act of implementing the advice when the CEO is sold on its merit. Some CEOs may have a general inclination toward advice seeking for symbolic versus substantive reasons, while others act with different motives in different occasions. These patterns may affect a CEO's career success and firm performance. Last, CEOs may experience conflict among multiple motivations. Wanting to maintain a certain advice relationship may direct a CEO to a particular source, while the need to obtain substantive advice may require a different source. CEOs may need to balance the benefits and costs of seeking advice, such as gaining useful advice while revealing their lack of expert knowledge.

Advice sources: New features. Our review suggests that different categories of advice sources are based on the location of the advisers in relation to the CEO (e.g., internal, hybrid, external) or their cognitive distance from him or her. In addition, it may be helpful to consider the *formality of the adviser role*. Some advisers occupy formal advisory positions, while others act from more informal ones. Advisers with formal advisory roles include board and TMT members, internal and external consultants, or members of business round tables (Carpenter & Westphal, 2001; Haunschild & Beckman, 1998; Kipping & Clark, 2012; Michel & Kammerlander, 2015; Reay, Pearson, & Gibb Dyer, 2013). Here, the formality of the advisory role is independent of the formality of advice *interactions*; that is, formal advisers can interact formally and informally with the CEO and vice versa (cf. Strike, 2013; Strike & Rerup, 2016).

Informal advisers, in turn, include any internal or external individuals who do not have an official advisory role. Acknowledging the degree of formality of the adviser role is important for several reasons. First, formal advisers are typically expected to advise the CEO and thus readily available for advice seeking. Thus, to ensure their availability, CEOs may deliberately appoint them as formal advisers to the TMT or board (Kim & Lu, 2018; Ma & Seidl, 2018). Second, when CEOs have lower discretion to appoint their formal advisers (e.g., due to governance measures or the irreplaceability of certain executives), these advisers may become subject to the symbolic functions of CEO advice seeking (cf. Westphal, 1998).

Furthermore, research has overlooked the *number of advisers* with whom a CEO engages for a single issue, which is different than the overall extensiveness of CEO advice ties (e.g., Cao et al., 2015). As CEOs often face complex challenges, they may engage multiple sources of advice and constituents. Paying systematic attention to the number of advisers involved is important because it may affect decision quality and speed. Relatedly, future research can examine the very process of advice seeking from multiple advisers and its potential consequences. This includes the sequence in which the CEO engages in advice interactions with the different advisers and the process of dealing with complementary or conflicting advice (an issue we examine in discussing advice utilization).

Nature of advice interactions: New features. Our review indicates that there is currently only limited insight into the nature of advice interactions. We suggest three potential avenues here. First, there is limited research on the importance of the *frequency* of the advice interaction—that is, the extent to which the CEO repeatedly interacts with a particular source of advice. While some studies measure frequency of advice seeking from particular sources (e.g., Sapienza et al., 1996), they have treated this construct in terms of the amount of advice received rather than the repetitive nature of advice interactions. In contrast to one-off exchanges, such repeated advice interactions may give the adviser a better view of the CEO's strategic and organizational challenges and enable both CEO and adviser to develop a common language and understanding that promote knowledge transfer. Conversely, one-off or infrequent advice interactions enable the CEO to reach different sources of novel information and insight within the organization or externally. For example, interactions with front-line managers and employees may grant the CEO access to real-time information about ongoing changes in the competitive environment. Given the high demands on the CEO's time and attention, new research can expand our knowledge of how effectively CEOs balance the benefits of deep advisory relationships versus those of one-off or infrequent advice interactions.

Second, *reciprocity* is another important aspect of advice interactions. CEO advice seeking can be either unidirectional or reciprocal. When interactions are reciprocal, the advisers may be more willing to engage, as they may receive advice or help in turn (Caimo & Lomi, 2015). The reciprocal nature of the advice interactions may deepen the relationship and allow exchange of advice on a broader range of issues, such as advice on strategy, leadership, and even personal issues. What drives the reciprocity of advice interactions warrants further examination. Peer-to-peer relationships with a comparable power/authority balance may be more conducive to such exchanges, although a CEO's most conveniently accessible relationships are asymmetrical in position and power (e.g., board of directors and TMT). The naturally lower inclination of nonexecutive board members to seek advice from the CEO (e.g., to preserve their impartiality) reinforces a one-sided advice relationship. This underscores the inherent challenge of reciprocity in some key CEO advice relationships and the vulnerability of the CEOs to a dearth of rich advice exchanges.

Third, the *tone of advice interactions* can be important. In particular, as the communication and discourse literature on advice shows, the politeness of delivering advice varies across advice interactions and can influence how the advice seeker perceives the quality of the advice and how that advice is used (Feng & Feng, 2013; Guntzviller, 2018; MacGeorge, Guntzviller, Hanasono, & Feng, 2016). Using a polite tone, the adviser tends to be supportive, to acknowledge the advice seeker's competence, and to respect the autonomy of the advice seeker's ultimate decision. Instead of framing the advice as normative (e.g., "You should do X"), an adviser with an unassuming tone may phrase the advice as an option to consider (e.g., "You might consider X"; Guntzviller, 2018). We can imagine that in the context of CEO advice seeking, the tone of the conversation is likely to affect the extent to which the CEO feels comfortable or threatened while interacting with the adviser. This will in turn affect the CEO's likelihood of utilizing the advice and seeking advice from that adviser in the future. New studies on the tone of advice interactions may make important contributions to CEO advice-seeking research.

CEO advice utilization. In examining the effects of CEO advice seeking, past research has implicitly assumed that the solicited advice is often utilized; however, this assumption may not reflect reality. The broader literature on advice shows that advice utilization may take different forms (Bonaccio & Dalal, 2006; Gino & Schweitzer, 2008; Gino, Shang, & Croson, 2009; Yaniv & Kleinberger, 2000). First, the advice seeker may simply adopt or follow the advice received, which is referred to as *incorporating* the advice. Research shows that advice seekers are more likely to incorporate advice in their final decisions if the advice source is trustworthy and knowledgeable (Bonaccio & Dalal, 2006), if the advice interaction takes place in a friendly and polite tone (Feng & Feng, 2013; Guntzviller, 2018; MacGeorge, Guntzviller, et al., 2016), and if advice is sought under high anxiety and low self-confidence (Gino et al., 2012). Advice utilization rate is also higher when the advisee pays for it (Gino, 2008). Second, the advice seeker may *discount* the advice—that is, underweighting or discarding the advice received (Van Swol, Paik, & Prahl, 2018). A robust finding in the psychology literature is that individuals tend to underweight advice from others and favor their own opinions, a phenomenon called "egocentric bias" (Yaniv & Kleinberger, 2000). This is particularly likely to happen when the advice seeker is powerful and knowledgeable (See, Morrison, Rothman, & Soll, 2011; Tost, Gino, & Larrick, 2012; Yaniv, 2004). Studies show that the degree of underweighting advice depends on the nature of the relationship to the adviser, such as the degree of rivalry (Menon & Blount, 2003; Menon, Thompson, & Choi, 2006), and the demographic similarity between the adviser and advisee. Gino et al. (2009: 287) find that in judging others' actions, information from a dissimilar adviser is more heavily weighed than information from a similar adviser, but in judging one's own actions, information from a similar adviser carries more weight than information from a dissimilar adviser. Third, advice utilization may involve *combining* advice from multiple sources. The psychology literature shows that after obtaining advice from different people, the advice seeker may combine conflicting advice in different ways, such as averaging viewpoints or discarding extreme opinions (Harries, Yaniv, & Harvey, 2004; Yaniv & Milyavsky, 2007). Yaniv and Milyavsky (2007) identify a tendency of *egocentric trimming*, whereby individuals favor advice similar to their own opinion and discard dissimilar views.

All three types of advice utilization—incorporating, discounting, and combining—are relevant in the CEO context. CEOs may discount advice from others, as they are highly powerful and knowledgeable individuals and thus prone to egocentric bias. Empirically, we know little about when and how CEOs discount advice, which can be a common occurrence in the case of symbolic advice seeking. We imagine that combining advice is also a prominent practice for CEOs. They regularly make complex decisions under uncertainty, thereby seeking advice from multiple sources that must be combined and reconciled before they make a final decision. Using insights from the broader advice literature, future research can examine how all three advice-utilization choices by the CEO affect micro- and macrolevel outcomes.

Microlevel and negative outcomes. Our review has revealed the diversity of outcomes that CEO advice seeking yields but also indicates that the majority of the studies focus on organizational outcomes. Future research must pay more attention to how macrolevel outcomes are generated by microlevel outcomes at the decision, group, and individual levels. For example, although past research explored the direct links between CEO advice seeking and firm-level outcomes, the links between advice seeking and intermediary variables such as quality and speed of strategic decision making were overlooked. Tracking micro- and group-level intermediary mechanisms can help uncover the causal relations through which CEO advice seeking and utilization play out.

To capture the full range of outcomes of CEO advice-seeking behavior, researchers may also consider the potential effects of advice interactions on the CEO's health and well-being. As we know from the broader literature on advice seeking (e.g., Athanasopoulou & Dopson, 2018; Gino et al., 2012; Stephan, 2018), reaching out for advice can be an important coping mechanism during times of crisis at work or in one's personal life. Stress is a perennial aspect of an executive's career, and it can reach levels where CEOs, who are often seen as organizational heroes, may seriously struggle (Frost & Robinson, 1999). Executives are predisposed to taking action and multitasking; they are always on the move and rarely have time for reflection or introspection. This way of working can put their health at risk, especially if they lack the skills to understand their emotions and cope with high levels of uncertainty and performance pressure (Kets de Vries, 1995; Quick, Cooper, Gavin, & Quick, 2008). Advice interactions can be a substantial relief for CEOs from the intellectual and psychological standpoints. Sharing concerns and discussing difficult aspects of business and personal matters may help to relieve some of the inherent managerial anxiety. As most corporations already suffer from a shortage of top talent in the executive labor markets (Kor & Mesko, 2013), future research can help us gain insights into how to promote CEO and executive health and well-being through a range of advice interactions.

Furthermore, we need more research on the costs and adverse effects of advice seeking. While past research has focused on the benefits and positive outcomes of CEO advice seeking, a few studies have examined negative outcomes, such as strategic inertia and team conflict. Other negative effects may include *cognitive overload* (Sutcliffe & Weick, 2008), which can be caused by contradictory advice (Bonaccio & Dalal, 2006). The broader advice literature suggests that the more heterogeneous the advice one receives, the harder it is to process and integrate different pieces of advice, which can impede decision-making quality and speed (Sah & Loewenstein, 2015; Sniezek & Buckley, 1995; Yaniv & Milyavsky, 2007).

An additional negative CEO-level outcome of advice seeking is the potential *reduction in CEO's discretion* in decision making (Dalal & Bonaccio, 2010), particularly when seeking advice from boards or TMTs. After CEO advice seeking, board members may become keenly interested in an issue and monitor it, which may restrict the CEO's autonomy in decision making. Even when they do not, CEOs may feel compelled to follow the advice sought. To protect their discretion, CEOs may choose sources with less interference. More generally, these negative effects also raise a crucial question about how skillfully a CEO can balance the positive and negative consequences of advice seeking and whether one can become more skilled at this balancing act over time.

New Theoretical Perspectives for Studying CEO Advice Seeking

The existing literature contains a range of different theoretical perspectives from which to examine CEO advice seeking. The most widely utilized theoretical perspectives include information processing theory, resource dependence theory, human capital theory, network and social capital theories, social identity and leadership theories, and agency theory. Several other theoretical frameworks have been utilized in studies but to a lesser degree (see Table S2 in the online supplement). In addition to these theories, we wish to highlight three promising theoretical perspectives that are central to management studies and upper echelons research, but that surprisingly have not been used thus far in CEO advice-seeking research.

Attention-based view. The first theoretical approach is the attention-based view of the firm, which was developed in strategic management (Ocasio, 1997; Ocasio, Laamanen, & Vaara, 2018) and later applied in specific research streams, such as upper echelons research (Cho & Hambrick, 2006). There are at least three ways in which this perspective is relevant to CEO advice seeking. First, advice seeking can affect which issues (or aspects of issues) a CEO takes notice of and engages with. Here, the role of the adviser is not about providing input for handling preexisting issues (which the traditional information processing approach would focus on) but more about influencing what issues the CEO is likely to pay attention to. In other words, advice seeking is not only driven by the CEO's issues but can also generate those issues. To the extent that advisers attend to different issues than the CEO does (e.g., due to their experience and structural embeddedness), seeking their advice can compensate for the blind spots in the CEO's attention structure. Second, the CEO's existing attention structure affects the potential sources of advice with which he or she will engage. Given the particular structures wherein the CEO is embedded, the CEO's attention will be directed to particular advisers and away from others. For example, due to governance and administrative structures, CEOs frequently interact with the board and TMT members. As a result, they are likely to "attend" to them as potential advisers than to others. Hence, to understand why a CEO seeks advice from particular sources and not others, one might need to understand how his or her attention is structured. Third, the CEOs' attention structure also affects how they will deal with the advice they get (i.e., advice utilization). Specifically, when receiving multiple and potentially conflicting pieces of advice, the CEOs' attention structure can help explain what advice they will focus on. For example, CEOs are likely to pay more attention to a piece of advice that is repeatedly delivered through different communication channels (e.g., different committees) than advice heard only once.

Neo-institutional theory. The second theoretical perspective we wish to highlight is neo-institutional theory (Greenwood, Oliver, Lawrence, & Meyer, 2017; Scott, 2013), which is one of the most prominent theories in management studies to date. Although Minichilli et al. (2012) have hinted at the relevance of this theory in their cross-country comparison of the boards' advisory task performance, advice-seeking research has not yet systematically applied this theory. A neo-institutional perspective directs researchers' attention to the societal institutions that define which advice-seeking behavior is appropriate for CEOs and which is not. This has important implications. First, concerns about legitimacy may drive the CEO's choice of advice sources. For example, in publicly listed firms, CEOs are expected to consult with the board, but it might be inappropriate for them to consult with their family members or the CEOs of competitors. However, these expectations can be very different in family firms or entrepreneurial ventures. The legitimacy concern may drive the CEO to advisers other than those whom they would choose purely on the basis of the fruitfulness of their advice. This tendency to select advice sources based on legitimacy concerns is more pronounced when advice seeking is primarily driven by symbolic intentions. For example, in seeking the cooperation of constituents for a decision related to employee welfare, it would be helpful to seek advice from employee representatives as highly legitimate advisers. Second, when it is inappropriate to seek advice from particular advice sources, CEOs can refrain from appointing them to official advisory positions but still interact with them informally. In this way, CEOs can preserve their legitimacy by shielding their inappropriate behavior from public scrutiny. Third, the perceived conformity of a CEO's advice-seeking behavior with societal institutions can affect the legitimacy of the CEO and his or her leadership effectiveness. Such conformity can also affect the legitimacy of the organization as a whole, which then shapes the availability of resources and overall firm performance. Thus, the neo-institutional theory provides a novel perspective that can explain the multilevel outcomes of CEO advice seeking.

Practice theory. Practice theory is a prominent theoretical lens in management studies (Feldman & Orlikowski, 2011; Nicolini, 2012) and upper echelons research (Jarzabkowski, 2008; Ma, Seidl, & Guérard, 2015). At the heart of this perspective, there are three key assumptions: (1) Our social world comprises a network of interrelated social practices or routinized types of behavior that provide individuals with a kind of blueprint for action; (2) the particular social practices that individuals are socialized into shape how they act and interact with others; and (3) enacting social practices requires particular skills from the individual.

This perspective has important implications for conceptualizing CEO advice seeking. First, CEO advice seeking can be understood as a particular set of social practices. That is, there are prescribed ways of approaching people and seeking their advice. For example, seeking advice from board members may entail a different set of practices than seeking advice from fellow CEOs. Researchers can comparatively examine these practices. Second, enacting advice-seeking practices requires a CEO's experience and skills. Thus, the specific advice-seeking behavior that a CEO exercises can change as she or he becomes more skillful in enacting different advice-seeking practices. Third, we may pay attention to the role of tools and materiality in a CEO's practice of advice seeking. For example, there is an emerging need to understand how new technologies, such as big data–driven business intelligence and artificial intelligence (e.g., robot-advisers), may change or create new CEO advice-seeking practices. Fourth, similar to all practices, advice-seeking practices are embedded into a network of other practices. For example, advice-seeking practices may be linked to decision-making practices. The broader system of relationships among related practices may collectively drive the impact of CEO advice seeking on decision making. Developing an understanding of the components of the system and its interlinks may yield insights into the interdependent mechanisms underlying more or less effective advice-seeking practices.

Methodological Opportunities for Studying CEO Advice Seeking

Our review of the literature shows that, to date, researchers have mobilized a host of different methodologies to examine CEO advice seeking. These include large-sample studies based on archival data (e.g., Geletkanycz & Hambrick, 1997; Kim & Lu, 2018) and survey data (e.g., Heyden et al., 2013; McDonald et al., 2008), experiments (e.g., Bridwell-Mitchell & Lant, 2014; Walter et al., 2015), case studies (e.g., Garg & Eisenhardt, 2017; Ma & Seidl, 2018), and mixed methods (e.g., O'Reilly et al., 2018). Our review shows that archival- and/or survey-based large-sample studies have been the most common methods. These studies have generated numerous insights into the macropatterns of CEO advice seeking, including strategy- and governance-related antecedents and organizational-level outcomes.

However, our review also revealed a lack of studies that mobilize methods that can capture the microlevel and temporal dynamics of CEO advice seeking. This is probably why we have a very limited understanding of the CEO advice-seeking process and the microlevel outcomes that it yields. Despite being underutilized, two methods have been shown to be effective in addressing this gap. We briefly highlight their strengths to draw attention to these methods.

First, in-depth case studies are particularly suitable for exploring the process of CEO advice seeking, as this method can identify the activities through which CEOs seek and utilize advice. For example, Garg and Eisenhardt (2017) demonstrate how case studies can help us understand the micropatterns of CEO–board advice interactions, revealing practices that are highly effective. In addition to identifying the linkages among the process elements discussed earlier (see Figure 1), given its exploratory nature this approach can help us discover other important process elements that shape CEO advice seeking and related outcomes. To be sure, gaining access for this kind of data collection can be difficult due to the sensitivity of the data and the time constraints of CEOs. However, the challenge of gaining access is often overstated. For example, Ma and Seidl (2018) report that out of the 15 CEOs they approached, eight accepted to participate in an extensive study of TMT dynamics.

Second, experiments can be effective in generating knowledge about the microdynamics of CEO advice seeking. Although it is difficult to simulate the complexity of CEO advice seeking in a laboratory, well-designed experiments can capture some basic cognitive and behavioral mechanisms. For example, using a sample of executive MBA students, Levin et al. (2011) simulated an advice-seeking context and were able to show the value of seeking advice from dormant ties and explain why CEOs refrained from using them. These insights into the value of dormant ties as a novel advice source would have been difficult to discover through other methods because CEOs do not regularly seek advice from dormant ties. We can imagine that experiments can be useful for identifying mechanisms or relationships that are difficult to capture with archival data sets. For example, experiments may be useful in identifying how CEOs combine conflicting advice from multiple sources, which can be subtle and difficult to observe.

Conclusion

In this paper, we have reviewed the burgeoning but dispersed literature on CEO advice seeking. Using an integrative framework, we synthesized research findings to generate a more holistic and comprehensive understanding of CEO advice seeking. The review has revealed important research gaps and helped us develop a research agenda that extends the current scope of analysis. We hope that this review contributes to advancing CEO advice-seeking research from an emergent stage to a well-grounded, paradigmatic field of study. Given the complexity of a CEO's job and its far-reaching effects on business and society, research on CEO advice seeking is likely to bear fruit in multiple ways.

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Note

1. As is common in literature searches, a combination of a word or an unfinished word and "*" was used to capture the different variations of that word. For example, "advi*" can capture "advice," "advising," "adviser(s)," "advisor(s)," and "advisory."

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